



US Army Corps  
of Engineers®

Engineer Research and  
Development Center

Product

## Quality Assurance Software for Spatial Data Collection

### Technology

The Windows® based *Computerized Process for Quality Assurance (CPQA)* software package is an automated quality assurance/quality control (QA/QC) process for spatial data collection. *CPQA* helps users create “Scope of Work” documentation for topographic, hydrographic, boundary, control, photogrammetric, etc., surveys. *CPQA* consists of two modules, “Guidance,” and “Evaluation with Reporting.” The program interface prompts users for required information (and makes useful suggestions) based on user input and guidance from U.S. Army Corps of Engineers (USACE) Engineering Manuals and Engineering Circulars, such that the resulting document specifies the accuracy, scale, measurement density, etc. needed to complete the specified projects.

### Problem

The advent of new technology being used for projects involving spatial data collection and the increasing amount of contracted work performed in this field, have combined to create a need for a standardized way to implement and evaluate these projects to ensure the level of quality in the survey data and products produced. *CPQA* was developed to automate the process of developing a scope of work for spatial data collection. The information entered into *CPQA*’s structured menus (e.g., the SOW menu above) forms a basic metadata file that can help contract monitors evaluate deliverables.

**CPQA Statement of Work (SOW) data entry menu.**

### Expected Cost To Implement

*CPQA* software can be downloaded via the World Wide Web (WWW) free of charge. The program requires a PC with a 80386 (or higher) processor, a Windows® operating system (95/98/NT/2000/XP), and about 20 megabytes of hard disk space.

### Benefits/Savings

*CPQA* provides an efficient interface that assists in creating a scope of work /task order, and that also stores all the essential information in a text file database. The program also helps contract monitors and contractors with this process, and provides the Corps with the most efficient and cost effective means of evaluating surveying and mapping projects.

### Status

*CPQA* Version 1.0 is complete and available via the Internet.

### ERDC POC(s)

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**Distribution Sources**

*CPQA* is available for download via the Internet through URL:

[http://www.tec.army.mil/what\\_products.html](http://www.tec.army.mil/what_products.html)

On the resulting page, under “Software Available,” Click on “Computerized Process and Quality Assurance (CPQA).”

**Available  
Documentation**

User documentation (in Microsoft® Word® format) is included with the software download.

**Available Training**

*CPQA* is used in the Proponent-Sponsored Engineer Corps Training (PROSPECT) course 35GPS01A, “Survey IV – GPS,” which provides a technical familiarization with EM 1110-1-1003, NAVSTAR Global Positioning System Surveying, and addresses the planning, data acquisition, data processing, and data analysis components of various practical aspects of GPS surveying. Details about this course (e.g., prerequisites, costs, location, presentations dates) are available through URL:

[http://pdsc.usace.army.mil/CourseListDetails1.asp?Cntrl\\_Num=203](http://pdsc.usace.army.mil/CourseListDetails1.asp?Cntrl_Num=203)

**Available Support**

Limited program support is available to non-Corps of Engineers users on a cost-reimbursable basis.